

NUVAR'YEV, A. S.

NUVAR'YEV, A. S.- "Investigation of Individual Problems of Stereo-Photogrametric Processing of Aerial Photographs." Min of Higher Education USSR, Novosibirsk Inst of Engineers of Geodesy, Aerial Photography, and Cartography, Novosibirsk, 1955
(Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

NUVAR'YEV, V.S., kandidat tekhnicheskikh nauk.

On dimensions in leveling using conventional measuring methods (as
used in mine surveying practice). [Trudy] VNIMI no.28:113-116 '54.
(Leveling)(Mine surveying) (MLRA 8:2)

NUVAR'YEVA, V. V.

"Investigation of the extinction of after-luminescence of ZnS-Cu, Fe, and ZnS-Mn phosphors in the regions of temperature extinction of luminescence." Tomsk State U imeni V.V. Kuybyshev. Tomsk, 1956.
(Dissertations for the Degree of Candidate in Physicomathematical Sciences)

SO: Knizhnaya letopis' No. 16, 1956

NUVAR'YEVA, V. V.

48-4-12/48

SUBJECT: USSR/Luminescence

AUTHOR: Nuvar'yeva V. V.

TITLE: Investigation of Afterglow Decay in ZnS-Mn- and ZnS-Cu, Fe-
Phosphors in the Region of Luminescence Temperature Quenching
(Issledovaniye zatukhaniya poslenvecheniya ZnS-Mn- i ZnS-Cu,
Fe-fosforov v oblasti temperaturnogo gasheniya lyuminesentsii)

PERIODICAL: Investiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21,
#4, p 510 (USSR)

ABSTRACT: Afterglow decay in two zinc-sulfide phosphors, in whose after-
glow localization levels of various depth participate, was
investigated.

It was found out that the decay law for ZnS-Cu, Fe (10^{-5} g/g)-
phosphor is expressed by at least 3 exponents in the initial
stages near and in the quenching region. The same law for the
ZnS-Mn (10^{-3} g/g)-phosphor is expressed by 2 exponents. Decay
in distant stages runs hyperbolically according to the formula:

$$I = A t^{-\alpha} \quad (\alpha \leq 2).$$

Card 1/2

TITLE:

Investigation of Afterglow Decay in ZnS-Mn- and ZnS-Cu, Fe-^{48-4-12/48}
Phosphors in the Region of Luminescence Temperature Quenching
(Issledovaniye zatukhaniya poslesvecheniya ZnS-Mn- i ZnS-Cu,
Fe-fosforov v oblasti temperaturnogo gasheniya lyuminestsentsii)

Exponents in decay can be described by the expression

$$I = I_0 e^{-pt},$$

where $p = p_0 e^{-\frac{\xi}{kT}}$ is the probability of thermal liberation of
electrons captured into localization levels of ξ -depth.

The values of p_0 were found experimentally for each capture
level by studying the afterglow decay.

A conclusion was drawn that the general shape of experimental
decay curves and their behavior with changes of temperature
and excitation intensity agree well with the theoretical
Adirovich law, taking into account temperature quenching.

No references are cited.

INSTITUTION: Tomsk State University.

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 2/2

24.3400
5 5310

30611
3/058/61/000/008/012/044
A058/A101

AUTHORS: Nuvar'yeva, V. V., Razmazanov, P. Ye., Chiznikova, L. A.

TITLE: Investigation of the photo- and electro-luminescence spectra of ZnS-Cu, Al phosphors

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1961, 150, abstract 8V405
("Dokl. Mezhriz. nauchn. konferentsii po spektr. analizu. Tomsk. Tomskiy un-t", 1960, 115-117)

TEXT: Two ZnS-Cu,Al electroluminescent phosphors were investigated, one of which had a blue glow while the other had a green glow. The electro- and photo-luminescence spectra practically coincide in the case of low concentration of blue centers. In phosphors containing more blue centers it was noted that the position of the peak of the temperature dependence differs for the two types of excitation. This difference in luminescence spectra is explained by the fact that the blue centers are not uniformly distributed throughout the volume but are concentrated for the most part near places where the centers undergo impact ionization. X

A. Burlakov

[Abstracter's note: Complete translation]

Card 1/1

RAMAZANOV, P.Ye.; NUVAR'YEVA, V.V.

Light sums stored in a ZnS-Cu, Al electroluminophor. Opt.1
spektr. 7 no.4:529-531 Ap '62. (MIRA 15:5)
(Luminescent substances)

24.3500

37225
S/051/62/012/004/013/C15
E 039/E485

AUTHORS:

Ramazanov, P.Ye., Nuvar'yeva, V.V.

TITLE:

On the lightsums stored in the ZnS-Cu, Al luminophor

PERIODICAL:

Optika i spektroskopiya, v.12, no.4, 1962, 529-531

TEXT:

It is assumed that the lightsums stored in a luminophor when excited by electric fields has some influence on the intensity of its luminescence. The nature of the effect is not clear and therefore an investigation was made to estimate the comparative lightsums stored in the ZnS-Cu, Al luminophor for different levels of preliminary excitation. The phosphor was excited at 100°K by electric fields of frequency 60 to 4860 c/s with voltages on the luminophor condenser of 200 to 1000 V. The thermal glow then determined from thermal glow measurements. The thermal glow curves showed a peak with a maximum at 113 to 123°K and a very weak peak near 238°K. For excitation at 60 c/sec, the maximum in the thermal glow curve is displaced by 10° to the high temperature side as the voltage is increased from 400 to 1000 V; while at 4860 c/sec, there is little change with voltage. The dependence of the intensity of luminescence on the excitation

Card 1/2

On the lightsums ...

S/051/62/012/004/013/015
E039/E485

voltage is given by the formula

$$I = Ae^{\frac{-b}{\sqrt{U}}}$$

where U is the voltage and A and b are constants.

In general, it is shown that the lightsums increase with voltage at low frequencies while at high frequencies they pass through a maximum (at 500 V for 4860 c/s) and then decrease with increasing voltage. There are 2 figures.

SUBMITTED: October 9, 1961

Card 2/2

NUVAR'YEVA, V.V.; RAMAZANOV, P.Ye.

Temperature dependence of the electroluminescence of zinc sulfide phosphors. Izv.vys.ucheb.zav.; fiz. no.3:113-116 '63.

Relation between electroluminescence and thermoluminescence. Ibid.: 116-118 (MIRA 16:12)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

RAMAZANOV, P.Ye.; NUVAR'YEVA, V.V.

Use of an MF-4 microphotometer in recording slow processes. Izv.
vys. ucheb. zav.; fiz. no. 3:165-166 '64. (MIRA 17:9)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom
gosudarstvennom universitete imeni Kuybysheva.

ACCESSION NR: AP4042983

S/0051/64/017/001/0082/0086

AUTHORS: Nuvar'yeva, V. V.; Ramazanov, P. Ye.

TITLE: Temperature dependences of the electroluminescence of ZnS-Cu,Al phosphors

SOURCE: Optika i spektroskopiya, v. 17, no. 1, 1964, 82-86

TOPIC TAGS: temperature dependence, electroluminescence, light excitation, luminescence quenching, luminor, zinc oxide optic material

ABSTRACT: In an attempt to establish a connection between the temperature dependences and the phosphor capture levels, primarily the levels that are manifest by thermal de-excitation, the authors investigated three ZnS-Cu,Al phosphors excited by fields of different frequency and intensity, and the thermal de-excitation of these phosphors following such an electric excitation at a temperature -180C. It is shown that an additional high-temperature peak appears

1/4

ACCESSION NR: AP4042983

on the temperature-dependence curve under certain conditions, and a tentative explanation of the peak is offered. It is suggested that localization levels of various depths participate in the determination of the temperature dependence, and the character of the frequency shift of various sections of the temperature dependence curves (higher temperatures correspond to higher activation energies) is offered as evidence in favor of this hypothesis. It is concluded that all the capture centers of the phosphor participate in the determination of the temperature dependence of the glow of the phosphor, and that the electric field plays a major role in the liberation of the charges from these capture centers at sufficiently high field intensities. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 07Oct63

ENCL: 02

SUB CODE: OP

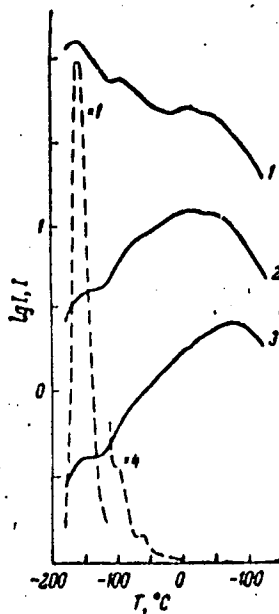
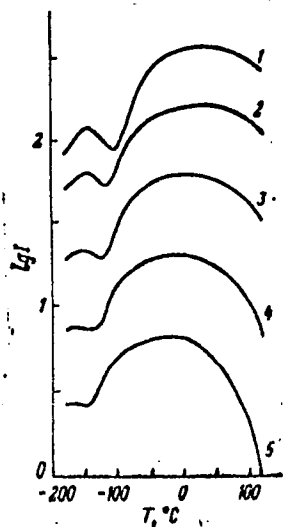
NR REF SOV: 003

OTHER: 002

2/4

ACCESSION NR: APL042983

ENCLOSURE: 01



Temperature dependences of electroluminescence of two types of ZnS-Cu,Al phosphors (EL-510 - right, 336g - left) for different frequencies (left) and for different emission bands (right).

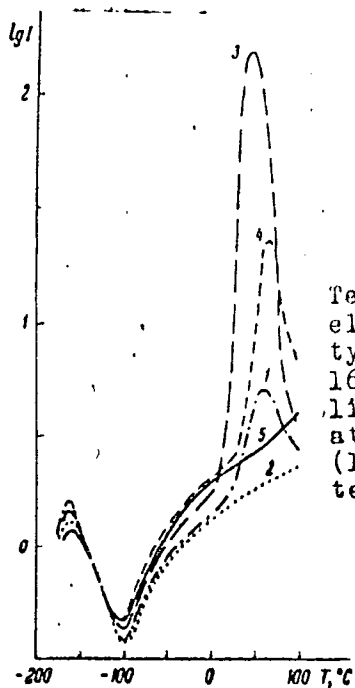
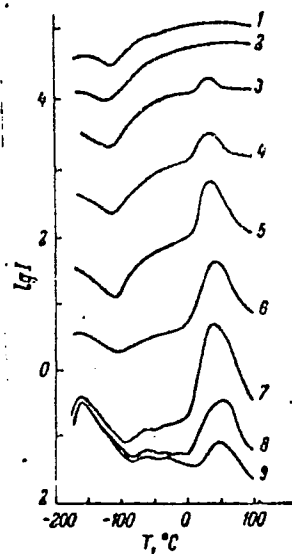
Dashed curve (right) - de-excitation curve.

Card

3/4

ACCESSION NR: APL042983

ENCLOSURE: 02



Temperature dependences of electroluminescence of one type of phosphor (125e) at 1620 cps, following preliminary excitation, obtained at different voltages (left) and at different temperatures (right)

Card

4/4

L 41364-65 EPR/EWT(1)/EWT(m)/EWP(b)/EWP(t) P1-4/PS-4 IJP(c) JD/JG
 ASSASSION NR: AP5003043 S/0051/65/018/001/0164/0167

AUTHOR: Nuvar'yeva, V. V.; Ramazanov, P. Ye. 24

TITLE: Stored light sums in electroluminescent ZnS-Cu, Al 8

SOURCE: Optika i spektroskopiya, v. 18, no. 1, 1965, 164-167

TOPIC TAGS: ²¹zinc-sulfide ²¹optical material, electroluminescence, light sum,
 luminor/ 125e, 336g, EL-510

ABSTRACT: Continuing earlier investigation on one type (125e) of ZnS-Cu, Al phosphor (Opt. i spektr. v. 12, 529, 1962), the authors measured the light sums thermally emitted by either electroluminors ZnS-Cu, Al (336g and EL-510) after excitation with fields at different frequencies and with different voltages on the electroluminescent capacitor. The general character of the curves obtained for the phosphors confirm the results obtained earlier. Since the phosphors 336g and EL-510, unlike 125e, have a rather strong blue band in addition to the green luminescence band, the authors investigated the total spectrally-unseparated light sums as well as the light sums separately radiated in the blue and green bands. It was established that both light sums have the same voltage dependence.

Card 1/2

L 41364-65

ACCESSION NR: AP5003043

More detailed results are presented in the article for the total spectrally-unseparated radiation. It is concluded that the dependence of the light sum on the voltage and on the frequency of the electric field is a general law that reflects the filling of the localization levels in electroluminescence and the depletion of these levels under the influence of the electric field. The voltage dependence of the light sum is similar to the voltage dependence of the electroluminescence yield, but it is not clear whether this is an accident or due to a single law that governs both the light sum and electroluminescence yield. Orig. art. has: 4 figures and 2 formulas.

ASSOCIATION: None

SUBMITTED: 07Mar64

ENCL: 00

SUB CODE: OP

NR REF SOV: 003

OTHER: 001

CC
Care 2/2

NUVAR'YEVA, Yu.A.

Spatial and genetic relation of complex metal mineralization in
the Kolyvan' Tarsk zone to Devonian volcanism. Trudy VNIIGIM,
no.35:116-123 '64.

INR-2845

NUVAR'YEVA, Yu.A.

Iron ores of Devonian deposits in the northern half of the
Rudnyy Altai. Izv. Alt. otd. Geog. ob-va SSSR no.5:43-45 '65.

(MIRA 18:12)

1. Sibirskiy nauchno-issledovatel'skly institut geologii,
geofiziki i mineral'nogo syr'ya, Novosibirsk.

RADKEVICH, R.A.; NUZBERG, L.I.

Certain biochemical criteria of the cure of osteoarticular tuberculosis in children [with summary in French]. Probl.tub. 37 no.1: 31-36 '59.
(MIRA 12:2)

1. Iz Instituta tuberkuleza AMN SSSR (dir. Z.A. Lebedeva)
(TUBERCULOSIS, OSTEOARTICULAR, in inf. & child.
ther., metab. aspects (Rus))

NUZBERG, L.I., Cand. Med. Sci., (diss) "Metabolism of thiamine in children
with osteoarticular tuberculosis under anti-bacterial therapy conditions,"
Moscow, 1961, 14 pp (Academy of Medical Sciences USSR) 250 copies (K14Supp 9-61, 191)

DAVYDOV, I.I., inzh.; NUZDANOV, V.F., inzh.; KOMPANEYETS, V.P., inzh.

Ways for preventing the weakening of the pole cores of diesel
traction engines. Elek. i tepl. tiaga 7 no.9:15-16 S '63.
(MIRA 16:10)

1. Depo Petropavlovsk. Yuzhno-Ural'skoy dorogi.

GINZBURG, I.I.; OL'SHANSKIY, Ya.I. [deceased]; BELYATSKIY, V.V.;
Prinimali uchast'ye: MUZHDENOVSKAYA, T.S., laborant;
ROZHDESTVENSKAYA, Z.S., laborant; KOZHINA, V.M., laborant;
FEODOT'YEV, K.M., otv.red.; SHLEPOV, V., red.izd-va; LAUT,
V.G., tekhn.red.

~~{Studies of~~ experimental and technical petrography and mineralogy]
Issledovaniia po eksperimental'noi i tekhnicheskoi petrografii i
mineralologii. No.4: [Studies on oxidation of sulfides] Eksperi-
mental'nye issledovaniia po okisleniiu sul'fidov. Moskva,
Izd-vo Akad.nauk SSSR. 1961. 130 p. (Akademiia nauk SSR.
Institut geologii rudynkh nestorozhdenii, petrografii, mineral-
ogii i geokhimii. Trudy, no.59) (MIRA 14:7)
(Sulfides)

POPUTNIKOV, F.A., inzh.; ZHURAVEL', R.D., inzh.; MURZINA, Z.A., inzh.;
NUZHIDIN, A.I., inzh.

Ways to make use of Kuznetsk Basin low coking and noncoking coals
in the charge for coking. Obozr. i brik. ugl. no.30:82-89 '63.
(MIRA 17:4)

NUZHDIN, A.S.

The GTK-7 centrifugal compressor for the compression of casing-
head gas. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. 1
tekh.inform. no.6:15-17 '62. (MIRA 15:7)
(Compressors)

1. NUZHIDIN, A.S.

2. USSR (600)

4. Bee Culture

7. Methods for strengthening bee colonies.
Pchelovodstvo 29. no. 11. 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

Country : USSR
 CATEGORY : Farm Animals. Honeybee
 ASS. JOUR. : RZBiol., No. 13 1958, No. 59656
 AUTHOR : Mazhdin, A.S.
 INST. :
 TITLE : The Apiculture of RSFSR during Forty Years
 of Soviet Rule.
 ORIG. PUB. : Pchelovodstvo, 1957, No.11, 2-12
 ABSTRACT : In Tsarist Russia, the number of bee colonies increased during the period of 1900-1910 by 19%, and during Soviet rule it rose in the period of 1920 to 1930 by more than 70%. A particularly great increase of the number of bee colonies occurred with the start of collectivization. In the kolkhozes of the RSFSR alone (apart from the subsidiary farms) the number of bee colonies (in thousands) was: in 1931 - 587; in 1934-2,211; in 1937 - 3,092; in 1941 - 3,510. Towards

CARD: 1/2

KOVALEV, A.M.; MUZHIDIN, A.S.; POLTEV, V.I.; TARANOV, G.F.; TEMNOV, V.A.;
NECHAYEVA, Ye.G., red.; PEVZNER, V.I., tekhn.red.

[Textbook on beekeeping] Uchebnik pchelovoda. Izd.2., perer.
i dop. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 635 p.
(MIRA 13:1)

(Bee culture)

NUZHEDIN, Aleksandr Sergeyevich; ROZOV, Sergey Alekseyevich; ZAVARSKIY, A.I.,
red.; PROKOF'YEVA, L.N., tekhn. red.

[Principles of beekeeping] Osnovy pchelovodstva. Moskva, Gos. izd-
vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 215 p.
(MIRA 14:10)

(Bee culture)

CHERNOUKHOV, A.M.; NUZHIDIN, A.V.

Determining the maximal hygroscopicity of liamy soils. Poch-
vovedenie no.1:125-126 Ja '59. (MIRA 12:2)

1. Voronezhskiy sel'skokhozyaystvennyy institut.
(Soil absorption)

CHERNOUKHOV, A.M.; NUZHIDIN, A.V.

Mobility of soil moisture and its availability to plants [with
summary in English]. Pochvovedenie no.4:98-100 Ap '59.

(MIRA 12:7)

1.Voronezhskiy sel'skokhozyaystvennyy institut.
(Soil moisture)

NUZHDIK, O. (Riga)

Valuable experience. Prom. koop. 12 no.10:28 0 '58. (MIRA 11:10)

1. Starshiy inspektor po okhrane truda.
(Latvia--Industrial safety)

NUZHIDIN, G., prepodavatel' spetsial'noy tekhnologii

Operating models of central heating systems. Prof.-tekh.
obr. 19 no.6:26 Je '62. (MIRA 15:7)

1. Remeslennoye uchilishche No.21, g. Riga.
(Heating--Models)

NUZHIDIN, I.

Large-panel houses for railroad workers with reed insulation.
Zhil. stroi. no.1:8-10 '63. (MIRA 16:2)

1. Glavnyy inzh. tresta Kazakhtransstroy.
(Apartment houses) (Reed products)

SOV/16-59-6-8/46

4(5)

AUTHORS: Korovin, F.T., Nuzhdin, I.D. and Filippenko, A.I.

TITLE: Disinfection as a Means of Antibacteriological Defense

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, ²² Nr 6,
pp 40-44 (USSR)

ABSTRACT: The authors deal with the principles and methods of decontamination and disinfection in bacteriological warfare. The information is based on foreign manuals and pamphlets on the subject, mostly US. There are 3 American references

SUBMITTED: December 16, 1958

Card 1/1

NUZHIDIN, N. I.

"Genetic analysis of certain problems of the physiology of development of *Drosophila*
Melanogaster." Institute of Genetics, USSR Academy of Sciences. (p. 571) by Nuzhdin, N. I.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. V, 1936, No. 4

NUZHIDIN, N. I.

Inst Genetics, Acad Sci

" Effect of the "Inert" Regions of Chromosomes on the Expression of Mosaic Characters "

SOURCE: Dok AN, 22, No 9, 1939

MUZHIDIN, N. I.

N. I. Muzhdin: "The role of hybridization and mutability (modification). I. The influence of heterozygotic structure on the modification of chromosomes & mosaic characteristics. II. The effect of complementary heterochromatin on the modification of normal allelomorph bobbed. (p. 175)

SO: Journal of General Biology Vol. 7, No. 3, 1944

Seasonal variations of the direction of invertase action and their bearing on the accumulation of sugar in the sugar beet. N. M. Shinkov and S. I. Nishulin. *Russk. Khim. Pr.*, 104-12(1966); cf. C. A. 51, 1966-1967; the method of vacuum infiltration it has been found that the synthetic action of invertase surpasses the hydrolytic action during the period of intense sugar-producing processes. When the latter slow down, and sucrose accumulates in the root, the hydrolytic effect of the leaf invertase begins to predominate over the synthetic. This occurs at the end of June and continues until the close of the vegetative period. A higher sucrose content in the beet root signifies that a higher hydrolytic invertase level existed in the leaves during the sugar accumulation. H. Frieslev

110

Characterization of sugar accumulation in the sugar beet as a function of the date of sowing. N. M. Siskyan and N. I. Stuchalin. *Russkaya 9*, 141-0(1044).--The spring sowing of the sugar beet is done at a time when farmers are unusually busy with other field work. It has, therefore, been suggested by I. Yenko that sugar-beet sowing be carried out in the summer. The expts. were performed in the city of Frunse, Kirghiz Republic. A comparison was made of the beet-sugar content and invertase action in normal sowing (April 9, 1948) and sowings at later periods (May 10, May 31 and June 10). Beets sown at later periods contain about the same percentage of sucrose, at the end of vegetation, as beets of normal periods of sowing. However, the beet yield per acre at later sowing periods is only a half or two thirds the value of normal beet sowings. H. P.

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

NUZHDIK, N. I.

"N. I. Nuzhdin: Hereditary Mutations & Ontogenesis." Received on November 4, 1944.
(p. 381)

SO: Journal of General Biology, Vol. VI, contents of the issues 1-6, for 1945. No. 6

NUZHDIK, N. I.

Inst Genetics, Acad Sci

"Multiple Ratios of Mosaic Frequencies "

SOURCE: Dok AN, 53, No 9, 1946

NUZHIDIN, N. I.

Inst Genetics, Acad Sci

" Heterochromatin, Rate of Embryonic Development and Mosaicism "

SOURCE: Dok AN, 54, No 1, 1946

NUZHDIIN N. I.

PA 17T1

USSR/Medicine - Variation
Medicine - Hybridity

Feb 1947

"The Role of Hybridization in Variation - III,
Influence of the Y- chromosome on the Variability
of the Yellow and Achaete Loci in the *Drosophila*
Melanogaster," N. I. Nuzhdin, Institute of Geo-
netics of the Academy of Sciences, Moscow, 27 pp

"Zhurnal Obshchey Biologii" Vol VIII, No 2

A further development of the author's previous
paper of the same title (1946), giving further
data in full agreement with his hypothesis as to
the role played by the structural homozygosity
and heterozygosity in chromosome changes.

17T1

NUZHIDIN, N. I.

"N. I. Nuzhdin's letter to the editor." (p. 65) by N. I. Nuzhdin.

SO: Journal of General Biology, Contents of Vol. IX, No. 1. (Issues 1-6 for 1948).

PA5/49T64

NUZHIDIN, N. I.

USSR/Medicine - Heredity, Mechanism Mar/Apr 46
Medicine - Hybridity

"Regularities in the Effect of Heterochromatine on
Mosaic Formation: II, Nature of Brief Relation-
ships on the Frequencies of Mosaic Formation,"
N. I. Nuzhdin, Inst of Genetics, Acad Sci USSR,
Moscow, 24 pp

"Zhur Obshch Biol" Vol IX, No 2

Nuzhdin has continued his work on the analysis of
the influence of heterochromatine on the develop-
ment of mosaic features in *D. Melanogaster*. Formu-
lates basic rules governing this development.
Submitted 29 Sep 46.

5/49T64

NUZHIDIN, N. I.

PA 77T60

USSR/Medicine - Chromosomes
Medicine - Heredity, Mechanisms

Apr 1948

"The Inter-Relation Between Chromosome Components, the Cellular Nucleotides, the Rapidity of Development, and the Appearance of an Indicator," N. I. Nuzhdin, Inst of Genetics, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 3

Results of experiments showed that author's hypothesis on role of homo- and heterozygote factor in mutations of chromosome or its components, was correct. As a result, this hypothesis is now accepted by geneticists, cytologists, and biochemists. Submitted by Acad V. N. Sukachev 20 Feb 1948.

77T60

USSR/Academy of Sciences
Biology
Genetics

Mar 49

"Review of Works of the Institute of Genetics of the Academy of Sciences USSR (No 16)," Edited by Professor N. I. Nuzhdin" 2 pp

"Vest Ak Nauk SSSR" No 3

Includes A. T. Trukhinovaya's article, "Frost-Resistant Wheat in Siberia," S. I. Isayev's, "Vegetative Hybridization of Apples," Kh. K. Yenikayev's "Progress in Growing Apricots in the North," and F. Kh. Kushner's "Stimulating Effect of the

Insemination of Chickens With Mixed Sperms Upon the Development of the Chicks."

46/49T7

NUZHIDIN, N. I.

The image shows a document page with a grid of circular perforations along the top and bottom edges. The text is as follows:

Soviet Genetics: The Real Issue, N. I. Nuzhdin, Na
tural Science, May 6, 1980 p. 701-708

Russian scientist attempts to refute Huxley's recent
criticisms of Soviet genetics as propounded by Ly
senko and his followers

Handwritten markings include the number "3" and the letter "C".

NUZDIN, N.

"Scientific polemics in biology. Tr. from the English." p. 26.
(Nauka i Priroda. Vol. 4, no. 1, 1951. Beograd.)

SO: Monthly List of East European Accession, Vol. 3, No. 6, Library of Congress,
Feb. 1954, Uncl.

NUZHIDIN, N. I.

Biology

In Sweden, Vest. AN SSSR 21, No. 12, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 195²₈, Uncl.

NUZHIDIN, N. I.

"Against Reactionary Mendelism and Morganism" Collection of Articles edited by:
M. B. Mitin, N. I. Nuzhdin, A. I. Oparin, N. M. Sisakyan, V. N. Stoletov.
Publishing House of the Akad. Nauk, USSR, Moscow-Leningrad, 1950, 350 pp.
Rev. by M. F. Nikitenko.

SO: Progress of Contemporary Biology, Vol. 32, 1951, No. 3 (6)

WISDOM, R. .

SPF
.R93010

САРВИН И АСОНУ ЛУКЧАЯ ПИЛЛОЛЛА. МОСКВА, ИЗД-ВО ЗНАТИ, 1962.
31 П. (ВСЕОБЩЕПОНАТНОЕ ТВ ПО РАДИО ТЕЛЕВИЗОРУ И РАДИО-КИНО И
ТАКОЖИ ЗНАТИ. 1962, СЕРИЯ 2, NO. 64) БИБЛИОГРАФИЧЕСКИЙ ПОСЛЕД.

NUZHDIK, N.I.

Darwin and Michurin's biology. Izv. Akad. nauk SSSR. Ser. biol.
no. 3:6-29 May-June 1952.
(CML 22:4)

NUZEDIN, N. I.

Darwin, Charles Robert, 1809-1882

Darwin and Michurin's biology. Priroda 41 no. 5, 1952

9. Monthly List of Russian Accessions, Library of Congress, August 195²₈. Unclassified.

NUZHDIK, N.I., doktor biologicheskikh nauk, professor.

[Darwin and Michurinist biology] Darwin i michurinskaya biologiya.
(2.izd.) Moskva, Izd-vo "Znanie", 1953. 31 p. (MLBA 6:11)
(Darwin, Charles Robert, 1809-1882) (Biology)

NUZHDIN, N.I.

Reappearance of weismannism under the banner of darwinism. Zh. obsh.
biol., Moskva 14 no.1:2-22 Jan-Feb 1953. (CLML 24:2)

NUZHIDIN, N. I. PROF

PA 244T9

USSR/Biology, Agriculture - Genetics Jan/Feb 53

"The Bankruptcy of Morganist Pseudo-Science," Prof
N. I. Nuzhdin

"Zhur Obshch Biol" Vol 14, No 1, pp 71-81

This is criticism of the papers published in "Genetics in the 20th Century. Essays on the Progress of Genetics During Its First 50 Years," Macmillan, New York, 1951. The criticism is interspersed with references to the deficiencies of Western and particularly of American civilization, the evils of American imperialism, the harmful effects of the

244T9

Marshall Plan, etc. One of the articles in the book is described as purely commercial propaganda which was written with the purpose of expediting the sales of American hybrid corn.

244T9

NUZHIDIN, N.I.

NUZHIDIN, N.I.; KOPYLOVA, Ye.N.; NECHAYEV, I.A.

Cytological picture of the change in chromosomes in the case of
propagation of closely related organisms. Trudy Inst.gen. no.20:127-
149 '53.

(Fruit flies) (Inbreeding)

(MLA 7:1)

1. NUZHIDIN, N. I., Prof.
2. USSR (600)
4. Science
7. Bankruptcy of bourgeois pseudo science. Priroda 42, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

NUZHIDIN, N. I.
USSR/Agriculture - Biology

Card 1/1

FD 277

Author : Nuzhdin, N. I., Glushchenko, I. Ye. Kushner, Kh. F.,
Pshenichnyy, P.D., and Feyginson, N. I.

Title : Problems of controlled heredity and vigor of plant and animal organisms

Periodical : Izv. AN SSSR. Ser. biol. 3, 3-18, May/Jun 1954

Abstract : Controversy over Darwin's theory of natural selection revolved around the question of possibility of inheritance of acquired characteristics. Proponents of dialectic-materialistic outlook claimed that Darwinsim contradicted the ideolistic philosophy; their adversaries directed their arguments against the materialistic foundations of Darwin's theory. Practical application of the principles of selection by I. V. Michurin resulted in the development of 40 improved varieties of agricultural animals. T. D. Lysenko's theory of phasal development of plants created conditions for development of new forms of sturdy winter wheat from summer wheat. The reason why agricultural science in the USSR has been lagging is due to inadequate coordination of theoretical work in all branches of biology and because practical utilization of breeding methods have not been properly carried out.

Institution :

Submitted : This article is an abridgement of a report, read on January 11, 1954 at a conference, sponsored by the Institute of Genetics, Academy of Sciences of the USSR, to coordinate research in genetics.

OPARIN, A.I., akademik; TSITSIN, N.V., akademik; KHRUSHCHOV, G.K.; ANICHKOV, N.N., akademik; BYKOV, K.M., akademik; KURSANOV, A.L.; LYSENKO, T.D.; TYURIN, I.V.; HUZHDIN, N.I.; IVANOV-SMOLENSKIY, A.G.; STUDITSKIY, A.N., professor; DOZORSEVA, N.L., kandidat biologicheskikh nauk.

Greetings to Academician N.N.Pavlovskii. Zool.shur. 33 no.2:241-242
Mr-Apr '54. (MLRA 7:5)

1. Akademik-sekretar' Otdeleniya biologicheskikh nauk Akademii nauk SSSR (for Oparin). 2. Zamestiteli akademika-sekretarya Otdeleniya biologicheskikh nauk (for TSitsin and Khrushchov). 3. Chlen-korrespondent Akademii nauk SSSR (for Khrushchov and Huzhdin). 4. Chleny Byuro (Anichkov, Bykov, Kursanov, Lysenko, Tyurin, Huzhdin, Ivanov-Smolenskiy, Studitskiy). 5. Deyatvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Ivanov-Smolenskiy). 6. Uchenyy sekretar' Otdeleniya biologicheskikh nauk Akademii nauk SSSR (for Dozortseva).
(Pavlovskii, Evgenii Nikanorovich, 1884-)

NUZHDIIN, N. I., SHAPIRO, N. I., PETROVA, O. N., and KITAYEVA, O..N.

"The Sterilizing Effect of Ionizing Radiation on Mammals" Report II. The Effect of X- and Gamma-Irradiations on the Estrus Cycle of Female Mice." in the book "Collection of Works on Radiobiology" edited by N.I.N. Publ. House of AS USSR, Moscow 1955.

Nuzhdiin

NUZHDIK, N.I.; SHAPIRO, F.B., redaktor; POLYAKOVA, T.V., tekhnicheskii
~~redaktor.~~

[Collection of papers on radiobiology] Sbornik rabot po radio-
biologii. Moskva, 1955. 159 p. (MLRA 8:11)

1. Chlen-korrespondent AN SSSR (for Nuzhdin) 2. Akademiya nauk
SSSR. Institut genetiki i institut biofiziki.
(Radiobiology)

V 7613

MD

EFFECT OF IONIZING RADIATIONS ON THE FERTILITY OF MICE AND THE VIABILITY OF THEIR PROGENY. N. I. Nuzhda, N. I. Shapiro, O. N. Petrova, and O. N. Kitayeva. p. 18-33 In *Meetings of the Division of Biological Sciences, Session of the Academy of Sciences of the U.S.S.R. on the Peaceful Use of Atomic Energy*, July 1-5, 1955. Moscow, Publishing House of the Academy of Sciences of the U.S.S.R., 1955. 33p. (In Russian)

Röntgen irradiation of male mice (200r and 400r doses) decreases their mating capacity and the litter numbers of those crossed with non-irradiated females. The latter is due to the high mortality of the embryo at various stages of embryogenesis. Among the progeny of the irradiated males there occur a great number of still births. One to three months after irradiation the fertility of the males is restored. The mice originating from ova inseminated with sperm developing from the regenerated germ cells do not differ from the control ones as regard their viability. The

post-embryonic development of the progeny of the irradiated males does not exhibit any deviations from the norm. The number of litters from males of the first generation originating from the irradiated males is markedly decreased as compared with the control. It was found that the post-embryonic character of sterility is caused by roentgen irradiation. A single total roentgen irradiation of female mice disturbs the course of the oestral cycle as manifested in a decrease in frequency of the oestral and pro-oestral stages and an increase in that of meta- and di-oestrous. The degree of disturbance depends on the dose and length of the post-irradiation period. The minimum effective dose of a single roentgen irradiation is about 50r. The disturbance in the course of the cycles sets in after a certain latent period (one to two months) depending on the dose. Within a six-month period following irradiation (doses 50, 100, 200 and 400r) the disturbance in the oestral cycle was found to be irreversible. The disturbance in the oestral cycle as caused by roentgen irradiation is similar in character in mice of the A and C₃H-black strain as well as in multipara and virgin females of strain A. A single total exposure of the females to 15 and 25r doses, although not affecting the course of the oestral cycle, decreases their fertility. Chronic exposure to small doses of gamma rays likewise evokes disturbances in the course of the oestral cycle in C₃H-black females. (auth)

(3)

Nurzhidin, A. I.

✓ Effect of estrogenic substances on the irradiation re-
action in mice. N. I. Shapiro, N. I. Nurzhidin, and A. M.
Kuzin. *Sbornik Rabot Radiobiol., Akad. Nauk S.S.S.R.,*
Inst. Genet., Biophys. 1955, 16-60. — Expts. to det. the pro-
tective action of synestrol and diethylstilbestrol were carried
out with white mice, males, (strain A). Two tenths mg.
of the estrogenic substance in 0.2 mg. olive oil was injected
subcutaneously in mice 10 days before the irradiation. Synes-
trol increases the radiation resistance $1\frac{1}{2}$ times, and di-
ethylstilbestrol 2 times. Various amts. introduced (0.025
mg.-0.8 mg.) showed about the same protective action
which appeared on the third day and lasted until the tenth
day, then decreased and disappeared on the 12th day. A
repeated injection of diethylstilbestrol gave a prolonged
effect. Injections of progesterone and pregnenolone do not
diminish the protective action of the estrogenic substances.
Sonya G. Machelson

3

Nuzhdin, N. I.

✓ Role of the physiological state of the body in using substances protecting it from the harmful action of penetrating radiations. N. I. Shapiro, A. M. Kuzin, and N. I. Nuzhdin. *Sbornik Rabot Radiobiol., Akad. Nauk S.S.S.R., Fiz. Genet., Biofiz.* 1955, 51-9.—The protective action of diethylstilbestrol was hardly noticeable in propagating white mice, females, (strain A), which show marked resistance to x-irradiation due to their hormones. Injection of white mice, males and virgin females, (strain A) with diethylstilbestrol showed an appreciable protective action which approached that manifested in the propagating mice. Expts. with C₃ black mice showed that greater amts. of the estrogen are required to produce the same effect as in white mice. This can be ascribed to their physiol. characteristics. Diethylstilbestrol gave no protection against acute lethal x-ray dosage. The mechanism of the protective action of diethylstilbestrol has not as yet been fully established.

Sonya G. Machelson

NUZHDIK, N.I.; DOZORTSEVA, R.L.; NECHAYEV, I.A.

Changes in the chromosomes in the *Crepis* genus due to interspecific crossing and grafting. *Izv. AN SSSR, Ser. biol.* no.3:71-96 My-Je '55.
(MLRA 8:7)

1. Institut genetiki Akademii nauk SSSR.
(CHROMOSOMES)
(CHICORY)

N. I. NUZHDIK, N. I.

USSR/General Biology, Genetics.

B-5

Abs Jour: Ref. Zh.-Biol., No 9, 1957, 35174

Author : Nuzhdin, N.I., Glushchenko, I.E., Kushner, Kh. F.

Inst :

Title : Problems of the Control of the Heredity and Vitality of Plant
and Animal Organisms (Summary of Report at Conference on Coordination of Genetic Research, January 11, 1954).

Orig Pub: Izv. AN SSSR, ser. biol., 1954, No 3, 3-18

Abstract: No abstract.

Card : 1/1

-1-

NAZDIN, N. I.

1962. Action of oestrogenic substances on the radiation reaction of mice. N. I. Shapiro, N. I. Nazdin, and A. M. Kuzin *Radiobiology, Acad. Sci., U.S.S.R.*, 1955, 18-20; *Referat. Zh. Biol.*, 1958, Abstr. No. 51463. Groups of 77-89 white male mice received subcut. 0.2 mg. of sinestrol or diethylstilboestrol in olive oil 10 days before general Röntgen radiation. Within 30 days in the group which was given sinestrol the survival was 57% compared with 37% in the control group, and in the case of diethylstilboestrol the corresponding figures were 78 and 39%. The average time of survival of those that died was 10.2 days with sinestrol compared with 10.7 in the control, and in the case of diethylstilboestrol 10.3 compared with 11.2. In the injected mice, particularly in those which received diethylstilboestrol, symptoms of radiation illness were less marked, the loss of wt. was less, and the recovery processes began sooner and developed more rapidly than in the controls. The injection of diethylstilboestrol mitigated the haematological symptoms and hastened the return of these to normal. An investigation of the effectiveness of different doses of diethylstilboestrol (0.025 to 0.8 mg.) showed in all cases a survival rate approx. double that of the controls. In experiments with mice which received i.d. 0.5 mg. of diethylstilboestrol 1-15 days before radiation injection at the extreme times in this range did not guarantee the protective effect, but protection was seen to the same extent when the injection was between the 3rd and the 12th day before radiation. Consequently, the protective effect of diethylstilboestrol begins 1-3 days after injection and ends in 12-15 days, but is maintained at the same level for about 10 days. Subcut. injection of mice with capsules containing 0.4 mg. of diethylstilboestrol mixed with talc

med

3

1/2

SHAPIRO, N.I., NUZDIN, N.I. AND...

10-30 days before radiation was successful in prolonging the period of protective active, although in some cases protection was present in a weaker form but the protection had fully disappeared within 30 days. With repeated injections of 0.2-20 mg. of diethylstilboestrol 10 days before radiation no reduction in the defensive reaction was observed in the second injection, which showed the absence of acquired tolerance of the organism to diethylstilboestrol, and the possibility of prolonging its defensive effect by repeated injections. The combination of subcut. injection of 0.5 mg. diethylstilboestrol with 3 mg. of pregnanol or with 1 mg. progesterone showed that the presence of these substances did not reduce the defensive activity. (Russian)

D. H. SMITH

2/2

NUZDIN, N.I.

✓ 4372. Sterilizing activity of ionising radiation in mammals. I. Effect of X-rays on fertility of male mice. N. I. Nuzdin, N. I. Shapiro, and O. N. Petrova. II. Effect of X-rays and of gamma radiation on the oestrous cycle in female mice. N. I. Nuzdin, N. I. Shapiro, O. N. Petrova, and O. N. Kitaeva. III. Nature of the sterility produced by the action of X-rays. N. I. Nuzdin, N. I. Shapiro, O. N. Petrova, and I. A. Nachaev *Radiobiology, Acad. Sci., U.S.S.R.*, 1955, 83: 112, 113-149, 150-159; *Referat. Zh. Biol.*, 1956, Abstr. Nos. 51,460, 51,461, 51,462.—1. A single dose of Röntgen rays 200-400 r causes sterilisation, accompanied by various signs of radiation illness and a lowering of body weight. Fertility depends on the dose, and on the time of crossing the animals with unirradiated females. The lowest fertility was seen on crossing one month after radiation, and was 16.7% compared with 84.8% in the controls. Fertility was almost normal in crossing either immediately or after 3 months of radiation. Investigation of the testes of the radiated animals showed a sharp disturbance of spermatogenesis due to damage to the germ cells in the early stages of spermatogenesis, and to a temporary interruption of spermatogenesis on account of loss of capacity of the cells for division. Within a month after radiation recovery of spermatogenesis started and continued for 3 months. The spermatozoid stage is the most sensitive, but the spermatozooids already formed do not undergo damage. Post embryonic development of the males of the first generation is not different from normal animals.

II. With a single dose 15-25 r, the oestrous cycle in mice of strain A was not disturbed but with doses of 50, 100, 200, and 400 r changes took place in the time relations of the cycle; the frequency of pro-oestrous and oestrous was lowered, and there was a lengthening of di-oestrous and met-oestrous. The disturbance of the normal cycle begins with the second months after radiation. The absence of change in the oestrous cycle in mice radiated with small doses 15-25 r is not an indication of normal fertility; the number of

Ref 3

4-

SHAPIRO, N.I., NUZDIN, N.I. AND...
10-30 days before radiation was successful in prolonging the period of protective active; although in some cases protection was present in a weaker form but the protection had fully disappeared within 30 days. With repeated injections of 0.2-20 mg. of diethylstilboestrol 10 days before radiation no reduction in the defensive reaction was observed in the second injection, which showed the absence of acquired tolerance of the organism to diethylstilboestrol, and the possibility of prolonging its defensive effect by repeated injections. The combination of subcut. injection of 0.5 mg. diethylstilboestrol with 3 mg. of pregnenol or with 1 mg. progesterone showed that the presence of these substances did not reduce the defensive activity. (Russian)

D. H. SMYTH

2/2

NUZHEDIN, N.I.

Darwin's and Michurin's views of the role of environment in the
variability of organisms. Izv. AN SSSR. Ser. biol. no. 2:18-28
Mr-Apr '56. (MLRA 9:7)
(BIOLOGY--PHILOSOPHY)

NUZHDIK, N.I.

Ch. Darwin and I.V. Michurin's views of the significance of environment
in the variability of organisms. Trudy Inst.gen. no.23:22-23 '56.
(MLRA 10:1)
(Adaptation(Biology))(Variation(Biology))

NUZHDIK N.I.
SHAPIRO, N.I.; NUZHDIK, N.I.; KITAYEVA, O.N.

Studying the reasons of disorders in the estrual cycle of mice following total X irradiation. Izv. AN SSSR. Ser.biol. no.5: 537-555 S-O '57. (MIRA 10:10)

1. Institut biologicheskoy fiziki Akademii nauk SSSR i Institut genetiki Akademii nauk SSSR.
(ESTRUS) (X RAYS--PHYSIOLOGICAL EFFECT)

LYSENKO, Trofim Denisovich, akademik, HUZHDIN, Nikolay Ivanovich,
STAROSTENKOVA, M.M., red.; BERIOV, A.P., tekhn.red, FEIGINSOV, N.I. red.;

[For materialism in biology; based on public lectures in the Central
Lecture Bureau of the Society in Moscow]. Za materialism v biologii;
po materialam publichnykh vystuplenii v Tsentral'nom lektorii Obshchestva
v Moskve. Moskva, Izd-vo "Znanie," 1958. 67 p. (Vsesoiuznoe obshchestvo
no rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.8, vyp.1,
no.14/15) (MIRA 11:9)

1. Chlen-korrespondent AE SSSR (for Lysenko).
(Biology--Philosophy)

NUZHDIK, N. I., and SHAPIRO, N. I.

"X-Radiation and Female Fertility in the Different Species of Mammals."

paper submitted for the Intnl. Congress. on Radiation Research, 10-16 Aug 1958.
Burlington, Vermont.

GLUSHCHENKO, I.Ye., red.; NUZHDIK, N.I., red.; PASHINSKAYA, T.N., red.;
PREZENT, I.I., red.; FEYGINSON, N.I., kand.sel'skokhoz.nauk, red.;
OZEROV, V.H., red.; ZUBRILINA, Z.P., tekhn.red.

[Achievements in the field of biological sciences; materials of the anniversary session of the All-Union Academy of Agricultural Sciences dedicated to the centennial of L.V.Michurin's birth] Dostizhenia biologicheskoi nauki; materialy iubileinoi sessii VASKhNIL, posvia-shchennoi 100-letiiu so dnia rozhdenia I.V.Michurina. Pod red. I.E. Glushchenko i dr. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 374 p.
(MIRA 12:10)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I. Lenina. 2. Moskovskiy gosudarstvennyy universitet, kafedra genetiki i selektsii (for Feyginson).

(Biology)

NUZHDIK, N.I.
NUZHDIK, N.I.

Present state of the theory of material carriers of heredity.
Agrobiologiya no.1:3-26 Ja-F '58. (MIRA 11:2)

1. Chlen-korrespondent AN SSSR, 2. Institut genetiki AN SSSR.
(Genetics)

NUZHDIK, N.I.

Methodological problems in present-day genetics. Agrobiologia
no.6:23-43 H-D '58. (MIRA 12:1)

1.Chlen-korrespondent AN SSSR.
(Genetics)

SHAPIRO, N.I., NUZHDIK, N.I., PETROVA, O.N.

Effect of X irradiation on the viability and fertility of guinea
pigs [with summary in English]. Zhur.ob.bio. 19 no.4:249-264
J1-Ag '58 (MIRA 11:7)

1. Institut biofiziki i Institut genetiki AN SSSR.
(X RAYS--PHYSIOLOGICAL EFFECT)
(GUINEA PIGS)

MUZHDIN N.I.

30-1-34/39

AUTHOR: Kushner, Kh. F. , Doctor of Biological Sciences

TITLE: The Problem of Heredity and Variability (Problema nasledstvennosti i izmenchivosti) Conference Held at the Institute of Genetics (Konferentsiya v institute genetiki)

PERIODICAL: Vestnik AN SSSR, 1958, Vol. 28, Nr 1, pp. 127 - 129 (USSR)

ABSTRACT: The conference on this problem took place from October 8, to October 14, 1957, at the Institute for Genetics AN USSR. It was attended by collaborators of scientific institutes and by the representatives of 50 other institutions of the country, among them Vaskhnil, the University of Moscow, the Academy of Medical Sciences of the USSR, and many others. The total attendance amounted to more than 1000 persons. The following lectures were delivered:

- 1) T. D. Lysenko: On the rules governing the life of biological species and their importance in practice.
- 2) N. I. Muzhdin: On the material carriers of heredity.
- 3) K. S. Sukhov: Genetical problems connected with virus research.
- 4) P. V. Makarov: Cytological and cytochemical changes of the gametes in the course of fecundation or impregnation
- 5) S. M. Sarkisyan: The participation of the organism of the mother and its cytoplasm in the determination of a num-

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30-1-34/39

The Problem of Heredity and Variability. Conference Held at the Institute of Genetics

ber of inherited features of androgynous offspring.

- 6) I. Ye. Glushchenko: New works in the field of vegetative hybridization
- 7) S. N. Bocharov: The obtaining of productive yeast by the method of vegetative hybridization.
- 8) I. A. Baryshnikov: The influence exercised by the organism of the mother on the properties of the offspring.
- 9) B. G. Novikov: Change of the properties of heritage of male sex cells in domestic fowls by means of an inter-racial transplantation of the testicles.
- 10) P. M. Sopikov, Ye. V. Tolokonnikov:
On marked changes of the character of the color of the feathers in the offspring of chickens that underwent a transfusion of the blood of another species of fowls.
- 11) P. P. Sakharov: On inheriting immunity and the creation of highly resistant forms of agricultural animals and fowls.
- 12) Ye. S. Smirnov: On the connection between the inheriting of properties and the phenomenon of adaptation to new conditions of existence.

Card 2/4

The Problem of Heredity and Variability. Conference Held at the Institute of Genetics

30-1-34/39

- 13) V. Ya. Yur'yev: The principal problems of wheat selection.
- 14) Kh. F. Kushner: On methods of utilizing heteroecism in agricultural animals and fowls.
- 15) Ye. Ya. Borisenko: Important problems of selection in cattle- and V. A. Shchekin: horse breeding.
A. I. Pung:
A. S. Vsyakikh:
- 16) T. Ya. Zarubaylo: Valuable observations concerning the transformation of the form of summer grain to that of winter grain.
- 17) M. M. Kislyuk: Changes of the species of wheat under the influence of temperatures below zero on the germs.
- 18) N. D. Mukhin: On a successful application of the method of transformation from summer- to winter grain for the purpose of breeding new kinds of wheat.
- 19) P. D. Pshenichnyy: New data concerning the variability of the morphological and functional characteristic features in the case of cattle, pigs, sheep, and rabbits in dependence of their food and concerning the influence exercised by these changes on the characteristic features of

Card 3/4

30-1-34/39

The Problem of **Heredity** and Variability. Conference Held at the Institute **F**
Genetics

their offspring.

- 20) V. D. Timakov: Certain rules governing the variability of pathogenic microorganisms.
- 21) S. N. Muromtsev: The present stage of the problems of variability of microorganisms.
- 22) N. S. Butarin: An attempt making creative use of the
N. V. Loginova: Mitshurin method of remote hybridization
A. I. Lopyrin: for the purpose of the selection of agri-
N. S. Giginayshvili: cultural animals.
A. A. Rakhimov:

AVAILABLE: Library of Congress
1. Biology 2. Scientific reports-USSR

Card 4/4

NUZHIDIN, N.I.

V. I. I. I. I. I.

AUTHOR: ~~Nuzhadin, N. I.~~ ~~Chief Scientist, Institute of Radiophysics and Atomic Energy, U.S.S.R. Academy of Sciences, Moscow, U.S.S.R.~~

TITLE: The issue of local (regional) characteristics of the radiosensitivity of organisms (institute of radiophysics and atomic energy, U.S.S.R. Academy of Sciences, Moscow, U.S.S.R. (shirotnykh))

PERIODICAL: Zhurnal Akademii nauk SSSR, 1968, Vol. 120, No. 5, pp. 1-10 (1968)

ABSTRACT: The investigation of the factors determining the sensitivity in question is of great importance for the determination of the rules governing the effects of ionizing radiation on biological objects as well as for the investigation of ways and means of biological protection against such radiation. In this field sufficient data are available indicating the varying sensitivity of different types of cells and organs to the mentioned effects (ref. 1). In this connection the determination of the properties in question of organisms of the same type is of special interest since they determine the degree of their sensitivity. In analyzing the effect of rad-

Card 1/4

(V. G. Gerasimov)
The Role of Constitutional (Hereditary) Factors in the Radiosensitivity of Animals

tective substance. In investigating the role of the physiological state, in determining the degree of damage caused by radiation, the degree of radiosensitivity due to constitutional or hereditary characteristics of the corresponding type or of line descent of the animals must be known. In this work mice of widely known lines such as C₃H, alb, Δ^0 , and C₅₇ (Ref. 18-19) were used. At the same time the Δ^0 line C₅₇-black (N₁) was examined. The data given in Table 1 on the survival of the mice were analyzed using the method of the **Probit-method** (Ref. 20). It can be seen from it that the C₃H mice are the most radiosensitive since they showed highest mortality after the radiation dose. They are followed by alb mice. The Δ^0 -black mice (N₁) and C₅₇ which are in direct relation to their descent are radiosensitive to the same degree. Obviously the Δ^0 mice are radioresistant at high doses of radiation. However, their resistance is not so high as that of the C₃H and C₅₇-black (N₁) mice. The results also prove that the sequence of the lines of mice, known here as to their radiosensitivity is maintained consistently.

Card 1/4

The Role of Constitutional (Hereditary) Character in the Mortality of Animals

by of the mortality of 50 % of the irradiated animals. On this occasion also the quantitative character of the differences between the lines are maintained to a certain degree. The average lifetime of the animals dying due to irradiation represents another important characteristic feature of the effect of the action of radiation. It has proved that the straight line to be expected theoretically, which was computed on the basis of experimental data according to the method of least squares, well agrees with the results from the average lifetime of irradiated animals obtained by experiments. The physiological mechanisms of the irradiation mortality of the lines differing as to their radiosensitivity are probably the same. There are 2 figures, 1 table, and 20 references, 7 of which are Soviet.

ASSOCIATION: Institut genetikii Akademii nauk SSSR
(Institute of Genetics, A. USSR)
Institut biofiziki Akademii nauk SSSR (Institute of Biophysics, AS USSR)

Card 3/4

NOV/20-120-8-54-61

The Role of Constitutional (Hereditary) Characteristics in the Radiosensitivity of Animals

SUBMITTED: March 17, 1958

1. Animals--Genetic factors
2. Animals--Physiological factors
3. Animals--Effects of radiation
4. Radiation injuries--Counter-measures

Card 4/4

NUZHIDIN, N.I.; KUSHNER, Kh.F.

Tenth International Congress of Genetics. Izv.AN SSSR.Ser.
biol. no.2:299-309 Mr-Apr '59. (MIRA 12:5)
(CANADA--GENETICS--CONGRESSES)

NUZHIDIN, N.I.

Lamarck, Darwin, and modern biology. Agrobiologia no.6:
803-831 H-D '59. (HIRA 13:4)
(Lamarck, Jean Baptiste, 1744-1829)
(Darwin, Charles Robert, 1809-1882)
(Biology)

NUZHEDIN, N.I.; SHAPIRO, N.I.; POMERANTSEVA, M.D.; KUZNETSOVA, N.N.

Comparative study of the effectiveness of a single and fractional
X irradiation of testicles in mice. Zhur.ob.biol. 20 no.3:216-
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(X RAYS--PHYSIOLOGICAL EFFECT) (TESTICLE)

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Lamarck, Darwin and modern biology. Usp.sovr.biol. 48 no.3:245-
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(GENETICS)

24(0)

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TITLE:

The Effect of X-ray Treatment on the Mitotic Activity of the Cornea (Vliyanie rentgenovskogo oblucheniya na mitoticheskuyu aktivnost' rogovitsy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 404-407 (USSR)

ABSTRACT:

The cornea epithelium is very reactive. The large number of cells continuously being divided here determines its high sensitivity. For this reason, the cornea has served since many years as a test object for the analysis of the biological effect of ionizing radiations. The present paper deals with mitotic conditions in the above-mentioned epithelium in the case of total irradiation of the animals with various doses. White mice of line A served this purpose. The doses amounted to 100, 600, and 800 r, the dose intensity to 58 r/min. The material was fixed 24, 72, and 120 hours after irradiation. The analysis of the results obtained has shown that cell divisions are suppressed during irradiation. The degree of suppression depends on the dose (Table 1). With doses of

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800 and 600 r the number of visible cell divisions decreases for 6 hours after irradiation. At 800 r there are no cell divisions any longer at this time, at 600 r they amount to 2.3 % of the examination. At 100 r restoration is determined already at this time. Besides the inhibition of division, there is also a shift in the distribution of mitoses according to the individual phases of divisions (Table 2). The fixation 24 and 72 hours after irradiation leads to a reduction of the prophase percentage and to an increase of the telophase percentage. With the reduction of the absolute number of pro-phases also the number of later phases of division decreases. It may be assumed that the course of the prophase is inhibited by irradiation. Furthermore it was found that the prophase stages prevail in the resumption of mitotic activity. At larger doses (600 and 800 r) the restoration is adjourned to later periods (after 3-5 days). A special feature of total irradiation is the production of pathological shapes of mitoses during the restoration mentioned (Table 3); at 600 and 800 r the authors still found a large quantity of

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pathological mitoses even after 5 days. There are 3 tables
and 12 references, 7 of which are Soviet.

ASSOCIATION: Institut genetiki Akademii nauk SSSR (Institute of Genetics
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TITLE: The Role of the Direct and Distance Effect of X-ray Irradiation in the Response Reaction of the Organism (Rol' pryamogo i distantсионного deystviya rentgenovskogo oblucheniya v otvetnoy reaktsii organizma)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3, pp 650-653 (USSR)

ABSTRACT: A number of recent papers confirm the distance effect of ionizing irradiation (Refs 1-12). In spite of this the problem mentioned in the title has still not been definitely clarified. It was the aim of the authors to find out the role in the mitotic processes of the organism as mentioned in the title. The corneal epithelium of 2-3 months old mice of the line A was used as test-object. The 2 experimental series were: a. total irradiation of the mice, b. with the head screened off by 4 mm thick lead, which secures a 98% protection according to dosimeter readings. An irradiation of 600 and 800 r was applied, the dose amounting to 55 and 58 r/min. The analysis of the results showed that the mitotic division of the corneal cells is prevented already during irradiation (Figs 1, 2, Table 1).

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An important difference between a distance effect and a direct effect of irradiation is the lack of the pathological forms of mitosis in the former case. In the case of direct irradiation, among the normal mitoses pathological forms appear after the restoration of the mitotic activity: the chromosomes do not move apart, bridges form during anaphase a mitoses of several poles as well as acentric fragments etc. From the results obtained it may be concluded that: 1. Apart from a direct effect of ionizing radiation a distance effect is quite obvious, i.e. the effect upon the tissue, an organ or a system of organs caused by the organism. 2. With respect to its effectiveness the direct effect exceeds the distance effect by several times; 3. The difference observed between the results of a total irradiation and those in the case of a screening off of the head refers to a different effect of radiation in the two types of action. There are 2 figures, 1 table, and 14 references, 7 of which are Soviet.

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